Risk Management Policy
PT Bank Mandiri (Persero) Tbk.

To anticipate the next wave of the COVID-19 pandemic and macroeconomic fluctuations in 2021, Bank Mandiri and its Subsidiaries has performed stress testing regularly based on the macroeconomic scenario presented by the Office of Chief Economist. Further, a credit risk sensitivity analysis was performed to identify the potential impact of the rise in coal prices in the second half of 2021 on borrowers and the Bank's credit portfolio and the impact of LIBOR reference rate transition borrowers in the Wholesale segment.

In 2021, Bank Mandiri made an update on its Recovery Plan and Recovery Options to prevent, recover, or remedy the Bank's financial conditions and business continuity in the event of financial stress, as regulated in OJK Regulation No.14/POJK.03/2017 on a Recovery Plan for Systemic Banks. This Recovery Plan consists of a whole-entity analysis of the Bank's and its Subsidiaries' business lines, including crises (reverse stress testing) that may happen to the Bank unexpectedly or a marketwide shock that may endanger the Bank's business (point of nonviability).

The Bank's risk management is regulated by a risk management policy that is based on Bank Indonesia Regulation, Financial Services Authority Regulation (POJK), the Third Basel Accord (Basel III), and international best practices. This policy is reviewed periodically to anticipate changes in business conditions, regulations, and the Bank's internal conditions.

The Bank's Risk Management System

In the implementation of risk management, Bank Mandiri strives to comply with and adheres to the prevailing laws and regulations in Indonesia such as :

1. Financial Services Authority Regulation (OJK Regulation) No. 4/POJK.03/2016 dated January 26, 2016, on Assessment of Commercial Bank Soundness Level.
2. OJK Regulation No. 18/POJK.03/2016 dated Mach 16, 2016 on Implementation of Risk Management for Commercial Banks
3. OJK Regulation No. 55/POJK.03/2016 dated December 9, 2016, on Implementation of Governance for Commercial Banks.
4. OJK Regulation No. 17/POJK.03/2014 dated November 18, 2014, on Integrated Risk Management for Financial Conglomerates.
5. OJK Regulation No. 18/POJK.03/2014 dated November 18, 2014, on Implementation of Integrated Governance for Financial Conglomerates.
6. OJK Regulation No. 11/POJK.03/2016 dated February 2, 2016, on Minimum Capital Adequacy Requirement for Commercial Banks, which is renewed to OJK Regulation No. 34/POJK.03/2016 on the Amendment to POJK No. 11/POJK.03/2016 on Minimum Capital Adequacy Requirement for Commercial Banks.
7. OJK Regulation No. 38/POJK.03/2017 dated July 12, 2017, on Implementation of Consolidated Risk Management for Banks Controlling Subsidiaries.
8. OJK Regulation No. 26/POJK.03/2015 dated December 11, 2015, on Integrated Minimum Capital Adequacy Requirement for Financial Conglomerates.
9. OJK Regulation No. 42/POJK.03/2015 dated December 23, 2015, on Liquidity Coverage Ratio Requirement for Commercial Banks.

10. OJK Regulation No. 50/POJK.03/2017 dated July 17, 2017, on Net Stable Funding Ratio Requirement for Commercial Banks.
11. OJK Regulation No. 32/POJK.03/2018 on Limit on Credit and Funds Provision for Commercial Banks.
12. OJK Regulation No. 11/POJK.03/ 2019 on Prudent Banking in Asset Securitization Activities for Commercial Banks.
13. Bank Indonesia Circular No. 9/31/DPNP dated 12 December 2007 on Guidelines on The Use of Standard Method for Calculating Minimum Capital Adequacy Requirement for Commercial Banks by Considering Market Risk.
14. Bank Indonesia Regulation No. 23/17/PBI/2021 dated 17 December 2021 on the Third Amendment to Bank Indonesia Regulation No. 20/4/PBI/2018 on Macroprudential Intermediate and Macroprudential Liquidity Buffer Ratio for Conventional Commercial Banks, Sharia Commercial Banks, and Sharia Business Unit.
15. OJK Circular No. 14/SEOJK.03/2015 dated May 25, 2015, on Implementation of Integrated Risk Management for Financial Conglomerates.
16. OJK Circular No. 34/SEOJK.03/2016 dated September 1, 2016, on Implementation of Risk Management for Commercial Banks.
17. OJK Circular No. 38/SEOJK.03/2016 dated September 8, 2016, on Guidelines on The Use of Standard Method for Calculating Minimum Capital Adequacy Requirement for Commercial Banks by Considering Market Risk.
18. OJK Circular No. 13/SEOJK.03/2017 dated March 17, 2017, on Implementation of Governance for Commercial Banks.
19. OJK Circular No. 43/SEOJK.03/2017 dated July 19, 2017, on Implementation of Consolidated Risk Management for Banks Controlling Subsidiaries.
20. OJK Circular No. 15/SEOJK.03/2015 dated May 25, 2015, on Implementation of Integrated Governance for Financial Conglomerates.
21. OJK Circular No. 14/SEOJK.03/2017 dated March 17, 2017, on Assessment of Commercial Bank Soundness Level.
22. OJK Circular No. 12/SEOJK.03/2018 dated August 21, 2018, on Implementation of Risk Management and Standardised Approach to Risk Assessment of Interest Rate Risk in Banking Book for Commercial Banks.
23. OJK Circular No. 42/SEOJK.03/2016 on Guidelines on Weighted Asset Calculation by Risk for Credit Risk Using a Standardised Approach.
24. OJK Circular No. 48/SEOJK.03/2017 on Guidelines on Derivative Transaction Invoice Calculation and Weighted Asset Calculation by Risk for Credit Risk Using a Standardised Approach.
25. OJK Circular No. 11/SEOJK.03/2018 concerning Changes to OJK Circular No. 42/SEOJK.03/2016 on Guidelines for Calculation of Risk Calculated Asset for Credit Risk using the Standard Approach.
26. OJK Circular No. 21/SEOJK.03/2016 on Calculation of Risk Weighted Asset using the Basic Indicator Approach EndFragment.
27. OJK Circular No. 6/SEOJK.03/2020 on Weighted Asset Calculation by Risk for Operational Risk Using a Basic Indicator for Commercial Banks.
28. OJK Regulation No. 14/POJK.03/2017 dated 7 April 2017 on Recovery Plan of Sistemic Banks.
29. OJK Regulation No. 31/POJK.03/2019 dated 2 December 2019 on the Mandatory Fulfilment of Gearing Ratio for Commercial Banks.
30. OJK Regulation No. 37/POJK.03/2019 dated 19 December 2019 on Transparency and Publication of Bank Reports.

31. Deposits Insurance Institution Regulation No. 1 of 2021 dated 30 March 2021 regarding Resolution Plans for Commercial Banks.

The Bank's Risk Management System

Risk Management Policy (KMNR) explains the basics of the Risk Management Policy and is the main guideline and the highest ranking rule in the management of risk in Bank Mandiri. KMNR is the point of reference with regards to policy, procedure, and guideline for risk management matters in accordance with applicable regulations.

Risk Management Principles

Bank Mandiri has the following Risk Management Principles :

1. **Capital**

   Bank Mandiri provides capital based on the risks it faces and maintains the capital level the applicable provisions.

2. **Transparency**

   Bank Mandiri openly discloses relevant information during a risk-taking process and the risk-taking itself.

3. **Independence**

   The management of Bank Mandiri acts professionally and is free from outside pressure and influence.

4. **Integration**

   Bank Mandiri applies Integrated Risk Management to Financial Institutions that are part of Bank Mandiri's financial conglomerates under applicable provisions.

5. **Continuity**

   Risk management is continuously developed to make it relevant to business conditions and the available best practices.

6. **Accountability**

   Bank Mandiri applies policies and procedures to guarantee the accountability of the management to its stakeholders.

7. **Responsibility**

   Bank Mandiri acts prudently and in compliance with the applicable laws and regulations.

8. **Equality**

   Bank Mandiri takes the interests of its shareholders based on equal treatment.

Risk Management Process

The Corporate Risk Management Process regulated in the Risk Management Policies is as follows :

1. Risk Management shall be performed across the Bank, at the operational, transactional, or portfolio levels.
2. Risk Management shall be performed at the individual and consolidated/integrated level with Subsidiaries in conjunction with the regulations and business characteristics that apply to the Subsidiaries.
3. The Risk Management process is dynamic and is routinely compared with the industry's best practices and the applicable provisions so that adjustments and updates can be made when necessary.
4. The execution of Risk Management is done in a manner consisting of :

a. Risk identification Risk identification aims to identify the types of risks prevalent in every functional activity that may pose a threat to the Bank
b. Risk measurement Risk measurement aims to identify risk exposures that are prevalent in the Bank's activities and compare them to the Bank's risk appetite so the Bank can take risk mitigation steps and allocate capital for residual risks.
c. Risk monitoring Risk monitoring aims to compare the limit of risk already set to the risk exposures that are being managed.
d. Risk control Risk control aims to prepare against potential risks that exceed the established risk limit of the Bank.

Integrated Risk Management System

Consolidated/Integrated Risk Management at Bank Mandiri has been in effect since 2008, in line with Bank Indonesia Regulation No.8/6/PBI/2006 on Implementation of Consolidated Risk Management for Banks Controlling Subsidiaries. With time, that regulation was supplanted by OJK Regulation No. 38/POJK.03/2017 on Implementation of Consolidated Risk Management for Banks Controlling Subsidiaries. Besides, Bank Mandiri has implemented Integrated Risk Management OJK Regulation No. 17/POJK.03/2014 on Implementation of Integrated Risk Management for Financial Conglomerates. In the implementation of Integrated Risk Management, Bank Mandiri also refers to Integrated Governance Guidelines per OJK Regulation No. 18/POJK.03/2014 on Implementation of Integrated Governance for Financial Conglomerates.

The implementation of Consolidated/Integrated Risk Management adheres to Risk Management principles, the business characteristics of each subsidiary, and local Authorities/Supervisors. Bank Mandiri's subsidiaries are Bank Syariah Indonesia, Bank Mandiri Taspen, Bank Mandiri (Europe) Ltd, Mandiri Tunas Finance, Mandiri Utama Finance, AXA Mandiri Financial Services, Mandiri AXA General Insurance, Mandiri Inhealth, Mandiri Sekuritas, Mandiri Capital Indonesia and Mandiri International Remittance.

As the Main Entity responsible for active monitoring of the implementation of Consolidated/ Integrated Risk Management, Bank Mandiri has an Integrated Risk Committee/IRC comprising Directors and the Company's officials as well as Directors and/or Officials from its Subsidiaries. Bank Mandiri also has an Integrated Risk Management Task Force (IRMTF) that is directly responsible to the Risk Management Director. The duties and responsibilities of the IRMTF are outlined in Bank Mandiri's Guidelines on Integrated Governance :

1. Provide input to the Board of Directors of Bank Mandiri concerning the establishment of Integrated Risk Management policy;
2. Monitor the implementation of Integrated Risk Management policy including developing the procedure and tools for identification, calculation, supervision, and control of risks;
3. Supervise risks in Financial Conglomerates based on the results of;
   a. Risk Profile of each Subsidiary of the Financial Conglomerate;
   b. Level of risk of each integrated risk;
   c. Integrated Risk Profile;
4. Perform stress testing;
5. Perform regular review to ensure:
   a. Accuracy of risk assessment methods;
   b. Adequacy of the implementation of the management information system;
   c. Accuracy of the integrated implementation of policies, procedures, and risk limit;

6. Review ideas for new strategic business lines that may have significant effects on risks borne by financial conglomerates;
7. Provide information to the Integrated Risk Management Committee on matters to attend concerning evaluation results of the Integrated Risk Management implementation;
8. Provide input to the Integrated Risk Management Committee to prepare and update the Integrated Risk Management policy;
9. Prepare and submit a report on Integrated Risk Profile regularly to the Director in charge of the Integrated Risk Management function and the Integrated Risk Management Committee.

In 2021, the IRMTF launched some integrated work initiatives/plans to improve the implementation of Consolidated/Integrated Risk Management of Mandiri Group, namely :

1. Implementation of Operational Risk Management (ORM) framework at Bank Mandiri (Europe) Ltd (BMEL) and Mandiri Manajemen Investasi (MMI);
2. Stress Testing of Mandiri Group with Subsidiaries every semester;
3. Enhancement of the Integrated Risk Management Information System (RACER System).
4. Strategic review of the implementation of Risk Management at some subsidiaries
5. Integrated Risk Management Forum every quarter.

Bank Mandiri also actively identifies, measures, supervises, and controls the risks of Mandiri Group (self-assessment) using an integrated information system called Risk Assessment Consolidation Generator (RACER) to support the self-assessment :

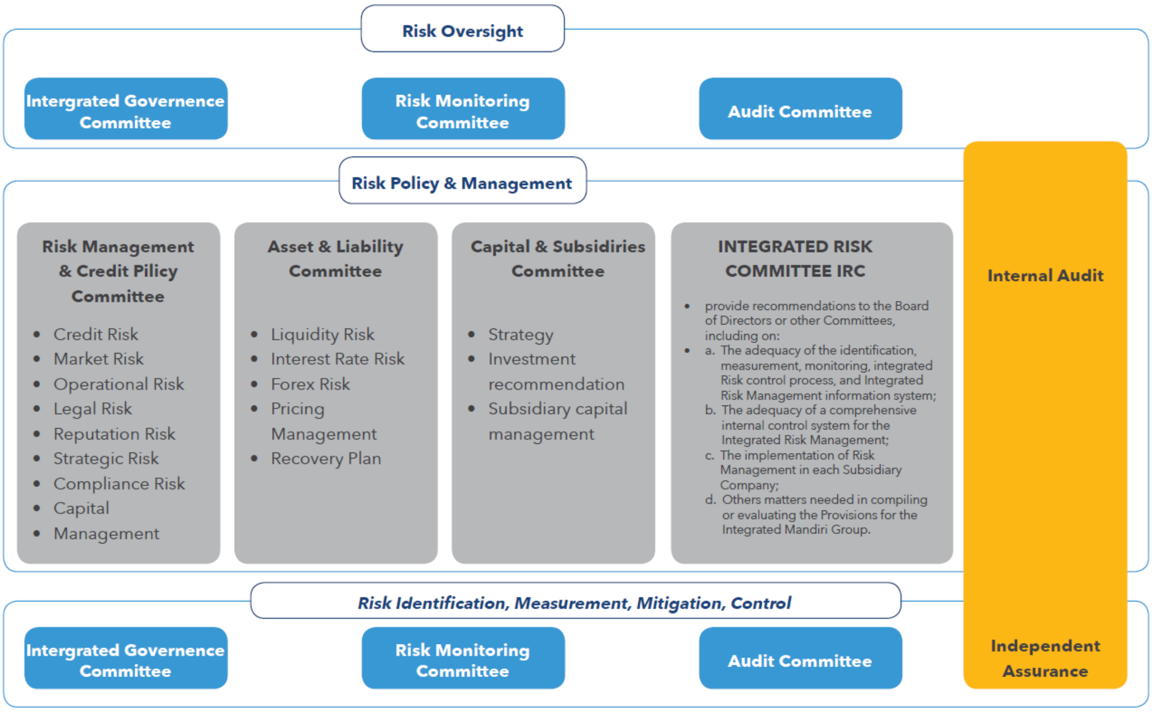
a) The Bank Soundness Rating is measured using consolidated Risk-Based Bank Rating (RBBR) consisting of the assessment of Risk Profile, Integrated Governance, Rentability, and Capital. In 2021, Bank Mandiri reported its Consolidated Soundness Rating for Semester II of 2020 and Semester I of 2021 to the Regulator in time.
b) The Consolidated Risk Profile consists of the management of 8 types of risk (Credit, Market, Liquidity, Operational, Legal, Reputational, Strategic, and Compliance). In 2021, Bank Mandiri reported its selfassessment of Consolidated Risk Profile for quarters I and III of 2021 to the Regulator in time.
c) The Integrated Risk Profile consists of the management of 10 types of risks (8 types plus Intra-group Transaction and Insurance Risks). In 2021, Bank Mandiri reported its Integrated Risk Profile for Semester II of 2020 and Semester I of 2021 to the Regulator in time.

The suggestion from the self-assessment result of the Consolidated/Integrated Risk Profile and the Consolidated RBBR is recommended by Integrated Risk Committee (IRC) and the approval is granted by the Risk Management & Credit Policy Committee (RMPC) Category A. Then, the self-assessment result of the Consolidated/Integrated Risk Profile and the Consolidated RBBR that have been approved by RMPC is reported to the Regulator and submitted to the Integrated Governance Committee.

Risk Management Framework

The Risk Management Framework of the Company is outlined in Bank Mandiri's Risk Governance Structure consisting of three main parts, namely Risk Oversight, Risk Policy and Management, and Risk Identification, Measurement¸ Mitigation, and Control. All these three are supported by an Audit Unit and an Independent Assurer to guarantee operational effectiveness.

Simply, the framework and risk governance of Bank Mandiri as mentioned above can be described as follows :



Bank Mandiri's Risk Governance Structure is developed based on four Risk Management Pillars as follows.

Active Supervision by The Board of Commissioners and Directors

The framework and risk governance at Bank Mandiri consist of the Board of Commissioners performing risk oversight through an Audit Committee, Risk Monitoring Committee, and Integrated Risk Governance, and Directors performing the function related to risk policy through an Executive Committee which consists of Risk Management & Credit Policy Committee, Asset and Liabilities Committee, Capital and Subsidiaries Committee, and Integrated Risk Committee. At the operational level, the Risk Management Work Unit along with Business Unit and Compliance Work Unit conduct risk identification, risk measurement, risk mitigation, and risk control.

The duties, responsibilities, and authority of the Board of Commissioners entail the active monitoring of Risk Management activities, including :

1. Understanding the risk attached to the company's functional activities, particularly one that can influence the Company's financial conditions;
2. Evaluating and approving the Risk Management Policies at least once a year or at a higher frequency if there are changes that affect the Bank's business significantly;
3. Evaluating the Directors' implementation of Risk Management to make it compliant with the policies, strategies, and procedures set by the Bank;
4. Providing advice to the Directors concerning transactions or business activities requiring significant budget;
5. Approving the financing of related parties for the credit authorized by the Credit Committee;
6. Performing an active oversight of the Bank's capital adequacy per the Bank's risk profile as a whole, including reviewing the Risk Appetite of the Bank established by the Directors;
7. Increasing the awareness of and enhancing antifraud culture across levels at the Bank;

8. Supervising the implementation of the Integrated Risk Management based on the characteristics and complexity of the Bank's business;
9. Supervising and evaluating the implementation of the Recovery Plan.

In implementing the Integrated Risk Management, the Board of Commissioners have the following responsibilities :

1. Directing, approving, and evaluating the Integrated Risk Management policies;
2. Evaluating the implementation of the Integrated Risk Management policies by the Primary Entity Directors.
3. Evaluating the implementation of the Recovery Plan.

The duties, responsibilities, and authority of the Directors regarding Risk Management activities include :

1. Formulating policies, strategies, and procedures for Risk Management in a written form comprehensively including establishing and approving the Bank's risk limit, and performing reevaluation once a year or more if necessary;
2. Taking the responsibility for the execution of the Risk Management Policies and risk exposures taken by the Bank as a whole, including evaluating and providing strategic direction of Risk Management based on a report submitted by the Risk Management Work Unit and the regular submission of an accountability report to the Board of Commissioners;
3. Evaluating and canceling transactions performed by a Bank official who is one level below the Directors or transactions requiring the approval of Directors under the applicable internal policies and procedure;
4. Increasing awareness and enhancing the culture of Risk Management, including antifraud culture across organizational levels, for instance by emphasizing the importance of effective internal control;
5. Improving human capital concerning the implementation of Risk Management, for instance by giving continuous lectures and training particularly concerning the system and processes of Risk Management;
6. Performing the Risk Management function independently, which is reflected in the separation of functions between the Risk Management Work Unit performing risk identification, measurement, oversight, and control and the work unit performing and concluding transactions;
7. Performing a regular review at an interval suited to the Bank's needs;
8. Establishing the capital adequacy ratio based on the Bank's risk profile and strategies to maintain the level of required capital, including determining the Risk Appetite;
9. Preparing and implementing the Bank's Recovery Plan, which includes:
   a. preparing a Recovery Plan realistically and comprehensively;
   b. presenting the Recovery Plan to shareholders during a General Meeting of Shareholders for approval;
   c. communicating the Recovery Plan kepada seluruh jenjang atau tingkatan organisasi Bank;
   d. performing a Stress Testing of the Recovery Plan regularly; and
   e. implementing the Recovery Plan effectively and timely.

In implementing the Integrated Risk Management, the Directors have the following responsibilities :

1. Formulating and implementing policies on the Integrated Risk Management
2. Nurturing risk culture as part of the implementation of the Integrated Risk Management;
3. Ensuring the effectiveness of human capital management to execute the Integrated Risk Management function;

4. Ensuring the independent nature of the implementation of the Integrated Risk Management;
5. Evaluating the review done by the Integrated Risk Management Work Unit regularly concerning the Integrated Risk Management;

Bank Mandiri also establishes risk management committees in charge of discussing and giving recommendations to the Directors on matters of :

1. Policies and procedures as well as the risks faced by the Company.
2. Management of the Company's assets and liabilities including interest rate and liquidity.
3. Management of subsidiaries (investment, divestiture, remuneration, formation of the management of the subsidiaries).
4. Implementation of Integrated Risk Management.
5. Business development.

The risk management at the Bank at least consists of :

1. Director in charge of the Risk Management function;
2. Risk Management Unit (SKMR);
3. Operational Unit (risk-taking unit);
4. Internal Audit Unit (SKAI);
5. Compliance Unit.

The Risk Management Unit (SKMR), Internal Audit Unit (SKAI), and Compliance Unit concurrently act as the Integrated Unit.

Adequacy of Policies, Procedures, and Limit Establishment

Bank Mandiri utilizes its Risk Management policies as the main guidance in carrying out the risk management function. For more specific business areas, Bank Mandiri sets more defined policies and procedures, for example in credit, treasury, and operational areas. Among other things regulated in the policies and procedure is the limit for each activity, both at portfolio and transactional levels. All the policies and procedures at Bank Mandiri are the realization of risk management for each activity of the Company that are evaluated and updated at least once a year.

Under SEOJK 34/SEOJK.03/2016 on the Implementation of Risk Management for Commercial Banks, to effectively control risk, a Bank's policies and procedures must reflect its Risk Management strategies by considering the level of risk to take (risk appetite). The level of risk/risk appetite is defined as the types and level of risk the Bank would take/face that is within the Bank's capacity to manage, to achieve business goals.

Bank Mandiri's risk appetite is realized through the Risk Appetite Framework which is strategic decision-making reflecting Bank Mandiri's risk strategies. The risk appetite is reflected in the Bank's strategies and business targets.

The risk appetite is outlined in a Risk Appetite Statement (RAS) which is a formal guideline on risk-taking processes to achieve business targets. RAS is important since it gives a clear and consistent direction for all levels at Bank Mandiri concerning risk-taking capability.

Adequacy of the Processes of Risk Identification, Measurement, Oversight, and Control, and Risk Management Information System

Bank Mandiri conducts the processes of Risk Identification, Measurement, Oversight, and Control as well as Risk Management Information System through the Enterprise Risk Management (ERM) framework. The ERM implementation at Bank Mandiri uses a two-pronged approach to ensure that the risk is not only mitigated properly through daily business processes but also when an unexpected situation (downturn) happens through capital reserves.

Internal Control System

Bank Mandiri practices effective risk management function across all work units by implementing three lines of defense with the following explanation :

1. Work Units as risk owners are the first line of defense responsible for managing their respective risks.
2. The Risk Management Unit acts as the second line of defense performing the oversight function.
3. The Internal Audit Unit acts as the third line of defense performing the independent assurance function.

Building Risk-Awareness Culture

To realize Bank Mandiri's vision "We aim to be your preferred financial partner", the Bank promotes riskawareness culture in all operational and business activities to mitigate risks that may disrupt the Bank's business continuity. The culture is introduced to all levels of the Bank, from top management to junior staff. The Bank's Board of Directors and Board of Commissioners have also determined a Risk Appetite Statement (RAS) that defines the risk level that the Bank is able to tolerate. RAS indicates the Bank's risk tolerance capacity and is developed to help the Bank achieve its business objectives. RAS informs business decision-making, and its implementation is intensively monitored.

Risk-awareness culture building is also reflected from the Bank's product and technology development; every development initiative observes the Risk Management System so that business sustainability can be maintained. Risk assessment and mitigation are also considered prior to a product or service launch/implementation. This risk approach also applies in the Bank's internal policies and technical guidelines formulation.

A successful risk-awareness culture needs support from everyone in the organization. Realizing this, the Bank incorporates risk-awareness into its corporate culture. The AKHLAK core values of the Bank are applied to ensure that they are deeply reflected in the employees' daily conduct – all employees

are expected to drive for growth whilst keeping risk consideration in mind in order for that growth to be sustainable in the long run.

Solid communication strategies are also important in improving risk-awareness culture. Bank Mandiri utilizes a wide variety of communication channels to ensure the wide reach of its messages. The different media channels are employed in a comprehensive manner, adaptive, and sustainable in order to build risk-awareness culture within an open, efficient, and effective risk management framework.

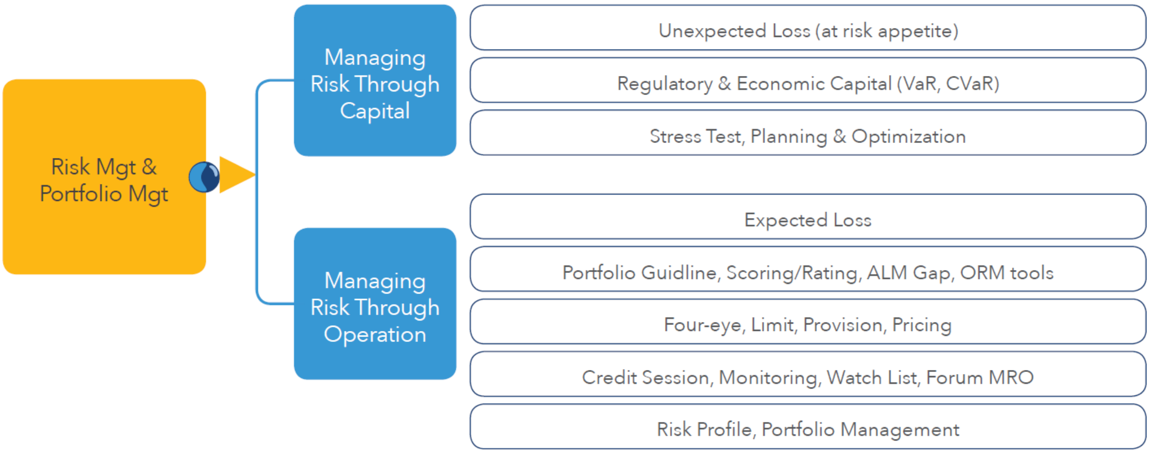
The Bank Risk Management

Risk Management is carried out in an integrated manner, linking strategic planning, risk appetite, execution, risk assessment and performance evaluation, in an effort to maximize shareholder value. The implementation of risk management is aimed at providing added value for the Bank and stakeholders to realize the Corporate Plan.

Bank risk management is regulated in a bank risk management policy prepared by referring to Bank Indonesia Regulations (PBI), Financial Services Authority Regulations (POJK), Basel regulations and international best practices. This policy is reviewed regularly to anticipate changes in the Bank's business conditions, regulations, and internal conditions. The Bank has a Risk Management Policy (KMNR) which explains the basics of Risk Management Policy and is the main guideline and highest regulation in the field of risk management at Bank Mandiri. KMNR becomes a reference for policies, procedures, and guidelines in the field of risk management in accordance with applicable regulations.

Bank Mandiri runs the management through the Enterprise Risk Management (ERM) framework. The implementation of ERM at Bank Mandiri uses a two-prong approach, namely risk management through capital and risk management through operational activities, shown in the diagram below :

Risk Management



In the two-pronged approach are 4 (four) main components of supporting pillars, namely :

1. **Organization & Human Capital**

   The Risk Management Unit (SKMR) at Bank Mandiri is responsible for managing all risks faced by Bank Mandiri, including the development of supporting tools required in business and risk management. Besides, there is a work unit acting as a risk counterpart of every business unit in the four-eye process of credit distribution. Since all work units at Bank Mandiri are responsible for risk management the success of risk management relies on the risk awareness among these work units coupled with sufficient technical know-how. Thus, Bank Mandiri always enhances its capabilities and the know-how of its employees particularly in matters of risk management, by arranging routine internal training programs via the Risk Management Academy or by outsourcing outside authorities on risk management so there is a transfer of knowledge to the employees of Bank Mandiri. Further, at least once a year, Bank Mandiri routinely arranges a workshop, forum, internship program, or a program on risk management in line with the Company's culture.

   The Risk Management structure at Bank Mandiri consists of the Risk Management Directorate in charge of Independent Risk Management and Credit Approval Risk units comprising Wholesale Risk and Retail Risk. The Risk Management Directorate is led by a Risk Management Director who is assisted by a SEVP of Wholesale Risk.

2. **Policies and Procedures**

   The Risk Management Policies (KMNR) become the main guidelines on the implementation of risk management at the operational level and the capital management at the Bank consists of :

   a) **Prudence**, which entails Capital Adequacy, Early Warning System, Limit Establishment, and Risk Diversification

   b) **Risk Management**, which entails Risk Profile, Risk Appetite, Stress Testing, and Integrated Risk Management.

   c) **Risk Management for each type of risks**, which entails processes of risk identification, measurement, oversight, and control.

   d) **Risk Oversight**, which entails monitoring of activities/methods of risk management at Bank Mandiri, and the Internal Control System.

These Risk Management Policies become the basis for making procedures and technical guidelines concerning risk management at Bank Mandiri.

3. System & Data

The risk management system is developed to achieve more efficient business processes so that decision-making is faster yet prudent. To maintain integrity and data quality, Bank Mandiri has adopted an Integrated Processing System and a Loan Origination System to increase the efficiency of credit processes and maintain data quality in the Corporate, Commercial, and Retail segments. To increase collection productivity level particularly in the Consumer and Retail segments, the Bank adopts an Integrated Collection System. Bank Mandiri utilizes a Summit System and an Ambit Focus System to manage trading book and banking book risks in the activities of treasury and assets & liabilities management.

To assess the Risk Profile and the Soundness Level of Mandiri Group at individual and consolidated levels, the Bank has adopted a web-based tool called Risk Assessment Consolidation Generator System (RACER) so that the risk assessment processes are more effective, efficient, accurate, and accountable and that the authorized access to the system is safer.

In terms of bank-wide risk management, Bank Mandiri has implemented a new ERM system as a method of oversight of holistic risk management. This is available in the same system platform as the calculation of capital adequacy to cover credit risk capital charge using a Standardised Approach, calculation of Advanced Internal Ratings-Based Approach as a reference to determining a risk premium and applying IFRS 9, as well as calculation of impairment loss allowance under the IFRS 9.

4. Methods/Model & Analytics

Bank Mandiri has continuously implemented a risk measurement that adheres to international best practices by using quantitative and qualitative methods and developing risk models such as rating, scoring, Value at Risk (VaR), portfolio management, stress testing, and others as support for judgemental decision-making.

Periodically, available models are validated by an independent Unit Model Validator to ensure the quality and validity of such models. These risk models are managed through a model risk management framework inherent in the function of the Model Governance Guiding Unit. The management of model risk is done to ensure control over every component in the model used in business processes and decision-making. This model management framework includes :

- Inventory Model

  Through the inventory model, the models at Bank Mandiri are identified. This identification of models includes information concerning the cycle of the models such as model initiation, model development, model validation, model implementation, model usage, and model monitoring. Some information on these models is about the description of or the statistical results produced by these models, the purpose of using the models, model owners, model developers, model users, and validation results.

- Model Risk Assessment

  An assessment of the level of risk of the models based on quantifiable observations about the materiality and complexity of the models.

- Model Control

  The process of monitoring of models and control over models constitutes a continuous assessment. The control process is done by validating models based on first-time validation or ongoing validation. The first time validation is validation conducted for the first time after the model development process takes place to ensure that the developed models adhere to academic requirements, best practices, and regulatory requirements. The ongoing validation is validation conducted periodically to ensure the performance of models.

With the adoption of the model management framework, there is a segregation of duties between the first line of defense (owner, developer, and user models), the second line of defense (validator model and model management guiding unit), and the third line of defense (Internal Audit).

Bank Mandiri also continues to implement Basel II, III, and ERM in compliance with the Financial Services Authority and the BCBS (Basel Committee on Banking Supervision) as well as the best practices, which cover Credit Risk, Market Risk, Liquidity Risk, Interest Rate Risk on Banking Book Position, Operational Risk, Capital Management, and Internal Capital Adequacy Assessment Process (ICAAP), as well as Stress Testing and Recovery Plan.